REMARKS

Claims 1 through 10 are pending in this application.

I. CLAIM OBJECTION/ALLOWABLE SUBJECT MATTER

Claim 2 was objected to for dependency upon a rejected base claim, but the Examiner stated that claim 2 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. That has been done. Allowance of this claim is therefore respectfully solicited.

II. CLAIM REJECTION UNDER § 103

Claims 1 and 9-10 were rejected under 35 U.S.C. § 103(a) for alleged unpatentability over Ozolins U.S. Patent No. 5,990,858. Claims 3 through 8 were rejected under 35 U.S.C. § 103(a) for alleged unpatentability over Ozolins in view of Rokunohe *et al.* U.S. Patent No. 4,549,175.

Claim 1

Claim 1 contains the following limitation: "said display apparatus *adapted for operation without need for any* analog-to-digital converter (ADC) or *phase-locked loop (PLL) circuit* for signal conversion."

Paper No. 17 states that Ozolins discloses various elements corresponding to some, but not all, recited elements of claim 1. Paper No. 17 then adds (¶ 3):

> Ozolins also teaches that since standard desktop computers produce analog RGB signals for cable connections instead of digital video signals, digital LCDs need

> additional analog to digital converter (ADCs) to int[e]rupt the video signals from the desktop computers (col. 1, lines 50-60). Ozolins further teaches analog LCDs that are capable of utilizing analog RGB signals have been introduced to the market recently, although such analog LCDs do not require ADCs (see col. 1, lines 63-67 and col. 2, lines 1-6). Thus it would have been obvious to one of ordinary skill in the art at the time of invention do [to?] not use any ADC in order to an interface that allows analog LCDs to simulate the operations of multifrequency CRT monitors having capabilities to adjust to various display protocols.

a. Jun respectfully traverses these assertions. First, Ozolins describes a device that uses a PLL 90 (col. 4:66-5:7). Therefore, the Ozolins device is *not* "adapted for operation *without need for any* analog-to-digital converter (ADC) or *phase-locked loop (PLL) circuit for signal conversion*," and thus fails to satisfy that limitation of claim 1. Hence, even if it were true (which it is not) that "it would have been obvious to one of ordinary skill in the art at the time of invention do not use any ADC in order to an interface that allows analog LCDs to simulate the operations of multifrequency CRT monitors having capabilities to adjust to various display protocols," Ozolins would still not make the subject matter of claim 1 obvious. The references relied on must disclose all limitations of the claimed device, whether the rejection is to be for § 102 or for § 103. *In re Lowry,* 32 F.3d 1579, 32 U.S.P.Q.2d 1031 (Fed. Cir. 1994).

b. Second, it does not follow that it would be obvious to "not use any ADC in order to an interface that allows analog LCDs to simulate the operations of multifrequency CRT monitors having capabilities to adjust to various display protocols" from the fact that "analog LCDs that are capable of utilizing analog RGB signals have been intro-

duced to the market recently, although such analog LCDs do not require ADCs." That something has come onto the market recently does not mean that a skilled person would be motivated or suggested to use them in this application. There must be a *specific* teaching, suggestion, or motivation in the prior art to make the particular combination of elements found in the claimed subject matter. *In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002). See also *In re Dembiczak*, 175 F.3d 994, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999).

c. Third, this rejection is based on what a person of ordinary skill in the art knows, but there is no record evidence on the ordinary level of skill and no findings as to that. In *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999), the Federal Circuit overturned an obviousness rejection by the Board because of its failure to make the kind of obviousness legal analysis that the Supreme Court commanded in *Graham v. John Deere Co.*, 376 U.S. 1, 17-18 (1966). Such a legal analysis must begin, the Federal Circuit has consistently held, with making specific findings of fact regarding the level of ordinary skill in the art. Thus the *Dembiczak* decision held that an obviousness rejection must be reversed if, like the instant rejection, it fails to contain "specific findings of fact regarding the level of ordinary skill in the art." 175 F.3d at 1000-01, 50 USPQ2d at 1618. No such findings can be found in Paper No. 9. In addition, the findings that the PTO makes on the ordinary level of skill must be supported by substantial evidence of record. *In re Kaplan*, 789 F.2d 1574, 1580, 229 USPQ 678, 683 (Fed. Cir. 1986) ("Even if obvi-

ousness of the variation is predicated on the level of skill in the art, prior art evidence is needed to show what that level of skill was."). See also *In re Mayne*, 104 F.3d 1339, 1341, 41 USPQ2d 1451, 1453 (Fed. Cir. 1997) ("The foundational facts for the prima facie case of obviousness are: ... (3) the level of ordinary skill in the art."). No such evidence exists in this record.

Thus, the rejection in this office action lacks findings and analysis that the Federal Circuit considers essential to support a rejection based on ordinary skill in the art. In addition, the rejection in office action lacks substantial evidence of record to support such findings, even if they had been made.

Claims 9-10

The last element of claim 9 is "a means for converting said data to a corresponding video signal without utilization of an analog-to-digital converter (ADC) or a phase-locked loop (PLL) circuit." Similarly, the end of claim 10 refers to "without utilizing an analog-to-digital converter (ADC) or phase-locked loop (PLL) circuit." Therefore, Ozolins does not disclose all recited claim elements/limitations, and the rejection is thus bad under *In re Lowry*, 32 F.3d 1579, 32 U.S.P.Q.2d 1031 (Fed. Cir. 1994). Jun accordingly incorporates herein by reference his remarks made above as to claim 1.

Claim 3

Claim 3 was rejected under § 103 as obvious over Ozolins in view of Rokunohe.

Paper No. 17 (¶ 4) states:

> Ozolins substantially shows the above claimed limitations except for a "deflection signal generator." However, Rokunohe disclose an image transmission apparatus includes a synchronizing signal generator (17), for generating horizontal and vertical synchronizing signal when raster scanning is made on a CRT (20), an deflection signal generator (62), a luminescent signal generator (63), a video amplifier (64). Rokunohe is cited to show the concept of using a d[e]flection signal generator (62) for receiving synchronizing signal output from synchronizing signal generator (17) via output terminal and for generating deflection signal is old. Thus, it would have been obvious to one of ordinary skill in the art to utilize the signal d[e]flection of Rokunohe in the display device of Ozolins to provide a flat panel display with means for connecting to an analog display, which make a convenient presentation to many people.

a. First, Ozolins has a PLL and claim 3 (see remarks as to claim 1, above) has as its final recited limitation "wherein said flat panel display apparatus *does not utilize any* analog-to-digital converter (ADC) or *phase-locked loop (PLL) circuit* for signal conversion." Ozolins does not disclose all limitations of claim 3.

b. Second, even assuming, *arguendo*, that the concept of using a deflection signal generator is old, per ¶ 4, that would not make it obvious to combine "the signal deflection of Rokunohe with the Ozolins display to provide a flat panel display with means for connecting to an analog display." Before the PTO may combine the disclosures of two prior art references in order to establish *prima facie* obviousness, it must establish on the record that some specific suggestion, motivation, or teaching is found in the prior art which would have led an ordinary artisan to select those specific references and to adapt and combine them in the same way that the inventor did. *Karsten Mfg. Corp. v. Cleveland Gulf Corp.*, 243 F.3d 1376, 1385, 58 USPQ2d 1286, 1293 (Fed. Cir. 2001) ("In holding

an invention obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention."); *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1998) (teaching or motivation or suggestion to combine is an "essential evidentiary component of an obviousness holding"); *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 546, 48 U.S.P.Q.2d 1321 (Fed. Cir. 1998)("There must be a teaching or suggestion within the prior art, or within the general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources of information, to select particular elements, and to combine them in the way they were combined by the inventor."); *In re Rouffet*, 149 F.3d 1350, 1355, 47 U.S.P.Q.2d 1453 (Fed. Cir. 1998); *In re Chu*, 66 F.3d 292 (Fed. Cir. 1995); *Heidelberger Druckmaschinen AG v. Hantscho Commercial Prods., Inc.*, 21 F.3d 1068, 1072 (Fed. Cir. 1994)("When the patented invention is made by combining known components to achieve a new system, the prior art must provide a suggestion or motivation to make such a combination."); *In re Jones*, 958 F.2d 347, 351, 21 U.S.P.Q.2d 1941, 1943-44 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1586, 1589-90 (Fed. Cir. 1988); *In re Geiger*, 815 F.2d 686, 688 (Fed. Cir. 1987); *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 U.S.P.Q.2d 929, 933 (Fed. Cir. 1984).

Paper No. 17, ¶ 4 appears to claim that a teaching, suggestion, or motivation in the

prior art can be extracted from the assertion "which make a convenient presentation to many people" at the end of the passage quoted above. But that is just a comment about what the invention will accomplish if you use it *after having been taught it by Jun's specification*. That is too general. It is just like the alleged motivation or suggestion that the PTO erroneously asserted in *In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002), where the Federal Circuit reversed because the court found it insufficiently specific and no better than hindsight.

Jun also respectfully incorporates herein by reference the other remarks made above as to claim 1.

Therefore, the rejection of this claim is not supported and should be withdrawn.

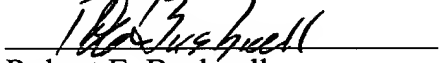
Claims 4-8

These claims depend from the independent claims discussed above. For present purposes, they may be considered to stand or fall with the base claims.

In view of the above, it is submitted that the claims of this application are in condition for allowance, and early issuance thereof is solicited.

A fee of $84.00 is incurred by the addition of one (1) independent claim in excess of total 4. Applicant's check drawn to the order of Commissioner accompanies this Amendment. Should the check become lost, be deficient in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



Robert E. Bushnell,
Attorney for the Applicant
Registration No.: 27,774

1522 K Street N.W., Suite 300
Washington, D.C. 20005
(202) 408-9040

Folio: P55281
Date: 7/02/02
I.D.: REB/RHS

MARKED-UP VERSION OF AMENDMENTS

IN THE CLAIMS

Please amend claim 2, as follows:

2 (amended). [The display apparatus of claim 1, further comprising] A flat panel display apparatus for receiving display information including video data and synchronizing data from a host processing digital data in a serial digital communication, said display apparatus adapted for operation without need for any analog-to-digital converter (ADC) or phase-locked loop (PLL) circuit for signal conversion, said display apparatus comprising:

a receiver for reconstructing said display information;

a synchronizing signal generator for generating a synchronizing signal by extracting the synchronizing data from said reconstructed display information;

a digital-to-analog converter (DAC) for converting said video data to a corresponding analog video signal;

an output terminal for externally transferring said synchronizing signal and analog video signal to an analog display apparatus; and

a video data converter for converting line and dot numbers of said video

data so as to correspond to a prescribed display mode when said synchronizing data has a different characteristic from said prescribed display mode, and said synchronizing signal generator generates said synchronizing signal corresponding to said display mode.